SUCCESSFUL TRANSLOCATION OF A MATURE FEMALE RIDGE-BACK TRAPDOOR SPIDER (IDIOPIDAE; *IDIOSOMA SIGILLATUM* (CAMBRIDGE))

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Female trapdoor spiders may be quite long-lived, and, once established, remain sedentary for the remainder of their life. Spiders may thus persist in undisturbed locations for long periods. They are often found within very small areas of native bushland within farmland, and even in suburbia. The dislodging in early Spring 2001 of a large female Ridge-back Trapdoor Spider (*Idiosoma sigillatum)* during renovation of a garden bed of 'Day Lilies' (*Hemerocallis* sp.) at the side of a long established Nedlands- house (built *c.* 1938) provided another example of this persistence. The intact live specimen retained also provided opportunity for attempting relocation.

I. sigillatum is widely distributed in sandy areas of the Swan Coastal Plain, as well as being found on Rottnest Island (Main 1990). Choice of a translocation site was based on the need for a sandy location readily accessible for further observation but also unlikely to suffer physical disturbance in the future. The site I chose for the experiment was within mixed Banksia/she-oak woodland on the CALM Woodvale Reserve (No. 30809).

Because mature spiders appear unable to initiate construction of new burrows it was necessary for me to provide a new hole in which the spider could seek refuge to prevent it wandering aimlessly in the bush and perishing on release. With *I. sigillatum* being one of the 'twig-liner' species, I also looked for a spot where linear litter could be readily available to the spider if it were to be capable of making a new home. Finally, I selected a site beside the base of a she-oak (*Allocasuarina fraseriana*) partially sheltered by a fallen log.

Making a rough estimation of the spider abdomen diameter, I chose a strong straight stick of slightly greater width, and, using firm hand pressure, pushed a vertical hole of c.18–20cm depth into the sandy soil. On my gently inclining the container in which I had the spider toward the lip of the newly constructed hole, the spider slowly crawled out, and somewhat to my surprise went straight down the hole without hesitation. No other assistance was

provided. The release was made late afternoon *c.* 2 days after the spider was dislodged from its original home, and was completed at *c.* 5:30pm on or about 8 October 2001.

I was unable to check the site again until the morning of the second day following (*c.* 40 hours later). When I did, I discovered that the spider had constructed a well-formed burrow lid complete with small bits of dry bark, etc. on the top, and had attached some other bits of litter around the lip of the hole opposite the hinge. The top inside section of the hole also appeared to be webbed in. I made no attempt to look further down into the burrow to see what the spider had done further below ground for fear of unacceptable disturbance.

Whilst I had had no particular hope that the spider might stay put, if not be predated on during exposure while at work after dark on the first night following release, the new accommodation provided had obviously proven acceptable and was being refurbished to suit the spiders immediate need. The next question would be whether the new home would suit the spider in the longer term. Possible desiccation over summer posed a further risk to survival.

Irregular site inspections suggested the spider was still present up to early December 2001. The burrow still appeared

Figure 1. The new burrow and surrounds at June 2002 of an adult female Ridge-back Trapdoor Spider about nine months after translocation from a Nedlands suburban garden to the Woodvale Nature Reserve. Scale = 20cent coin at rear hinge of burrow lid. Photo: R.I.T. Prince.

intact when next able to be inspected late January 2002, but whether the spider might still be alive was uncertain. Survival over summer was confirmed in May 2002 when it was ascertained that new bits of litter had been attached on the lid and around the lip of the burrow, which had been remodelled. Some additional she-oak needles had also been added to the twig 'moustache' characteristic of this species.

Photographs of the site were taken in early June 2002 (Figure 1). Some Perennial Veldt grass (*Ehrharta calycina*) had resprouted adjacent to the burrow, and some nest building by small ants was noted nearby. The spider was seen to have added further material to the twig 'moustache' by early July 2002.

The spider itself had not been seen through December 2002, and the early summer drought had dried the litter layer on site. However, the burrow surrounds remained in good condition. Further 'housekeeping' tests initiated from January 2003 on by placing a small twig transversely across the lip of the burrow lid onto the twig 'moustache' during late afternoon have invariably been followed by removal of this impediment, usually overnight. The spider has remained alive in its new home for c. 23 months to date (5 September 2003). The main risk to future survival now appears to be fire.

The successful translocation of this spider suggests that translocation of adult trapdoor spiders from badly disturbed habitats could be further tested as a conservation option, especially for some of the rarer and geographically restricted species.

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REFERENCE

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